AMENDMENTS TO THE CLAIMS

1-55 (Cancelled).

56. (New) A device for the parallel conduct or study of chemical reactions, comprising the following components:

(a) at least two spatially separated reaction spaces, each of which has an input side and an output side;

(b) on the reaction space input side, at least one common educt feed for the reaction spaces according to (a), or for subsets of them;

(d) on the reaction space output side, at least one connection per reaction space to at least one holding gas feed common to all the reaction spaces, or subsets of them; and

(e) on the reaction space output side, and downstream of the connection to the holding gas feed according to (d) in the product flow direction, at least one restrictor per reaction space, wherein the restrictors are configured to keep the pressure constant in all the reaction spaces even if volume fluctuations occur in the reaction spaces.

57. (New) A device according to claim 56, further comprising (c) on the reaction space input side, at least one restrictor per reaction space.

58. (New) A device according to claim 56, further comprising (f) at least one unit for analyzing the products from the individual reaction spaces.

59. (New) A device according to claim 56, further comprising (g) at least one common heater for the reaction spaces, and at least one other separate heater for at least one functionally related set of restrictors.

60. (New) A device according to claim 57, wherein the components (a), (b), (d), (e) and optionally (c) are hermetically connected to one another.

61. (New) A device according to claim 60, wherein components (a)-(e) are hermetically connected to one another.

62. (New) A device according to claim 57, wherein the components (a), (b), (d), (e) and optionally (c) are each connected to one another either directly or via channels, tubes or capillaries.

63. (New) A device according to claim 56, further comprising:

(i) at least one supply unit for the at least one educt; and

(ii) at least one pressure controller and/or mass flow controller for the at least one educt.

64. (New) A device according to claim 56, wherein common educt feed takes place via a manifold, a bifurcating arrangement of channels, tubes or capillaries with a common node/mixing point, or via an educt feed chamber.

65. (New) A device according to claim 57, wherein each restrictor according to (e), and optionally each restrictor according to (c), presents a flow resistance in the device resistance at least 50% greater than any other component in the device, apart from all the other restrictors.

66. (New) A device according to claim 57, wherein restrictors according to (e), and optionally the restrictors according to (c), are selected from the group comprising: metal plates with bores, sintered metal plates, pinholes, frits, porous materials, capillaries, micromachined channels.

67. (New) A device according to claim 56, wherein the restrictors comprise capillaries, and the average internal diameter of the capillaries is in the range of from 5 μm to 500 μm.

68. (New) A device according to claim 56, wherein the volume of each of the reaction spaces is in the range of from 0.1 ml to 50 ml.

69. (New) A device according to claim 56, wherein the reaction spaces are designed as reaction channels, and each of them has an inset for holding solids.

70. (New) A device according to claim 56, wherein the common holding gas feed comprises:

(i) at least one supply unit for holding gas,

(ii) at least one flow meter, and

(iii) at least one pressure controller.

71. (New) A device according to claim 70, wherein all or subsets of the reaction spaces are connected via a connection, which is hermetic up to at least 20 bar, to a holding gas feed common to all the reaction spaces, or subsets of them.

72. (New) A device for the parallel conduct or study of chemical reactions, comprising the following components:

(a) at least two spatially separated reaction spaces, each of which has an input side and an output side;

(b) on the reaction space input side, at least one common educt feed for the reaction spaces according to (a), or for subsets of them;

(d) on the reaction space output side, at least one connection per reaction space to at least one holding gas feed common to all the reaction spaces;

(d') on the reaction space output side, at least one connection per reaction space to at least one control fluid feed common to all the reaction spaces; and

(e) on the reaction space output side, and downstream of the connection to the holding gas feed according to (d) and the connection to the control fluid feed according to (d') in the product flow direction, at least one restrictor per reaction space, wherein the restrictors are configured to keep the pressure constant in all the reaction spaces even if volume fluctuations occur in the reaction spaces.

73. (New) A device according to claim 72, further comprising (c) on the reaction space input side, at least one restrictor per reaction space.

74. (New) A device according to claim 72, further comprising (f) at least one unit for analyzing the products from the individual reaction spaces.

75. (New) A device according to claim 72, further comprising (g) at least one common heater for the reaction spaces, and at least one other separate heater for at least one functionally related set of restrictors.

76. (New) A device according to claim 73, wherein the components (a), (b), (d), (e) and optionally (c) are hermetically connected to one another.

77. (New) A device according to claim 76, wherein components (a)-(e) are hermetically connected to one another.

78. (New) A device according to claim 73, wherein the components (a), (b), (d), (e) and optionally (c), (d') and (f) are each connected to one another either directly or via channels, tubes or capillaries.

79. (New) A device according to claim 72, further comprising:

(i) at least one supply unit for the at least one educt; and

(ii) at least one pressure controller and/or mass flow controller for the at least one educt.

80. (New) A device according to claim 72, wherein common educt feed takes place via a manifold, a bifurcating arrangement of channels, tubes or capillaries with a common node/mixing point, or via an educt feed chamber.

81. (New) A device according to claim 73, wherein each restrictor according to (e), and optionally each restrictor according to (c), presents a flow resistance in the device resistance at least 50% greater than any other component in the device, apart from all the other restrictors.

82. (New) A device according to claim 73, wherein restrictors according to (e), and optionally the restrictors according to (c), are selected from the group comprising: metal plates with bores, sintered metal plates, pinholes, frits, porous materials, capillaries, micromachines channels.

83. (New) A device according to claim 72, wherein the restrictors comprise capillaries, and the average internal diameter of the capillaries is in the range of from 5 μm to 500 μm.

84. (New) A device according to claim 72, wherein the volume of each of the reaction spaces is in the range of from 0.1 ml to 50 ml.

85. (New) A device according to claim 72, wherein the reaction spaces are designed as reaction channels, and each of them has an inset for holding solids.

86. (New) A device according to claim 72, wherein the common holding gas feed comprises.

(i) at least one supply unit for holding gas,

(ii) at least one flow meter, and

(iii) at least one pressure controller.

87. (New) A device according to claim 86, wherein all or subsets of the reaction spaces are connected via a connection, which is hermetic up to at least 20 bar, to a holding gas feed common to all the reaction spaces, or subsets of them.

88. (New) A device according to claim 72, wherein the common control fluid feed comprises:

(i) at least one supply unit for the control fluid;

(ii) at least one mass flow controller; and

(iii) downstream (relative to the flow direction of the control fluid) of the mass flow controller, one restrictor per connection of the control fluid feed to the reaction spaces.

89. (New) A device according to claim 88, wherein the connections from the control fluid feed to the reaction spaces are brought together at a node/mixing point with the connections attached to the reaction spaces on the reaction space output side for discharging the products.

90. (New) A device according to claim 89, wherein the nodes/mixing points for feeding the control fluid are downstream (relative to the flow direction of the control fluid) of the restrictors of the control fluid fee, and also upstream (relative to the flow direction of the product/products) of the restrictors on the reaction space output side [restrictors according to (e)].

91. (New) A method for the parallel conduct or study of at least two chemical reactions in at least two spatially separated reaction spaces, comprising the following steps:

(A) bringing at least one substance in at least two spatially separated reaction spaces in contact with at least one educt via at least one educt feed common to all the reaction spaces, or subsets of them;

(B) simultaneously bringing at least one product flow from the at least two spatially separated reaction spaces in contact with a holding gas from a holding gas feed common to all the reaction spaces, or subsets of them.

92. (New) A method according to claim 91, further comprising:

(C) simultaneously bringing the at least one product flow from the at least two spatially separated reaction spaces in contact with a control fluid from a control fluid feed common to all the reaction spaces, or subsets of them.

93. (New) A method according to claim 91, wherein at least one of the chemical reactions is not a constant volume reaction.

94. (New) A method according to claim 91, wherein the educt flows are at least approximately distributed equally over all the reaction spaces by restrictors upstream of the reaction spaces, or by restrictors downstream of the reaction spaces, or by both.

95. (New) A method according to claim 91, wherein volume fluctuations in the reaction spaces are reduced or compensated for by feeding an inert holding gas via at least one common holding gas feed.

96. (New) A method according to claim 91, wherein in start-up operation before the at least one chemical reaction has taken place in the reaction spaces, the holding gas from the common holding gas feed is adjusted to a pressure which corresponds approximately to the intended pressure of the reaction spaces while the chemical reactions are taking place, and the educt flow from the common educt feed is subsequently adjusted so that educt flows into the reaction spaces from the common in educt feed.

97. (New) A method according to claim 91, wherein the reaction space is loaded with at least one solid, the exposure of the solid to the educt is specified as GHSV in the event that the educt is a gas, or in LHSV units in the event that the educt is a liquid, and the GHSV is from 300 h^{-1} to 10,000 h^{-1} or the LHSV is from 0.2 h^{-1} to 10 h^{-1}.

98. (New) A method according to claim 91, wherein the pressure in the reaction spaces is in the range of from 2 to 200 bar.

99. (New) A method according to claim 94, wherein a pressure drop of at least 10 bar is produced in the restrictors downstream of the reaction spaces in the flow direction.

100. (New) A method according to claim 92, wherein a constant non-zero control fluid flow is adjusted in start-up operation, and the flow of educt through the reactor is respectively reduced or increased by increasing or reducing this control fluid flow when the reaction is taking place, specifically without the pressure in the reaction spaces being significantly affected by this.

101. (New) A method according to claim 91, carried out in a device according to claim 56 or 72.

102. (New) A device for the parallel conduct or study of multiphase chemical reactions, comprising:

(a) at least two spatially separated reaction spaces, each of which has an input side and an output side;

(b) on the reaction space input side, at least one common educt feed connected to the reaction spaces according to (a), or subsets of them;

(b') on the reaction space input side, at least one common educt liquid feed for the reaction spaces according to (a), or subsets of them;

(b'') on the reaction space input side and as part of the connections of the common educt liquid feed to the reaction spaces according to (a), at least one restrictor per connection;

(e') on the reaction space output side and downstream of a connection to an optional control fluid feed, in the flow direction of at least one reaction product, at least one gas-liquid separation unit per reaction space;

(e'') associated with each gas-liquid separation unit, a connection for discharging at least one reaction gas;

(e''') per connection according to (e'') and via a node/mixing point, a connection to a common holding gas feed; and

(e'''') after the nodes according to (e'''), downstream in the flow direction of the reaction gas, but before an optional analysis unit, at least one restrictor per connection according to (e''), configured to keep pressure constant in all the reaction spaces even if volume fluctuations occur in the reaction spaces.

103. (New) A device according to claim 102, wherein the connections of the common educt liquid feed according to (b') to the reaction spaces are spatially and materially separated from the connections of the common educt feed according to (b) to the reaction spaces.

104. (New) A device according to claim 102, further comprising at least one other of the following components:

(c’) on the reaction space input side and associated with the connections of the common educt feed to the at least two reaction spaces, at least one restrictor per reaction space;

(d’) on the reaction space output side, at least one connection per reaction space to at least one control fluid feed common to all the reaction spaces;

(f) at least one unit for analyzing the reaction gases from the individual reaction spaces; and

(g) at least one common heater for the reaction spaces, and at least one other separate heater for at least one set of restrictors.

105. (New) A device according to claim 102, wherein at least one of the reaction spaces according to (a) is designed as a gas-liquid-solid reactor.

106. (New) A device according to claim 102, characterized in that the gas-liquid separation units are precipitators and/or condensers, and the gas-liquid-solid reactor is a trickle bed reactor.

107. (New) A method for the parallel conduct or study of at least two chemical reactions in at least two spatially separated reaction spaces, comprising the following steps:

(A’) bringing at least one substance per reaction space in at least two spatially separated reaction spaces in contact with at least one educt via at least one educt feed common to all the reaction spaces, or subsets of them, and with at least one educt liquid via at least one educt liquid feed common to all the reaction spaces, or subsets of them;

(B') simultaneously bringing the at least one reaction gas flowing out of each gas-liquid separation unit in contact with a holding gas from a holding gas feed common to all the gas-liquid separation units;

(D) introducing the product flows flowing out of the reactor into at least one gas-liquid separation unit per reaction space.

108. (New) A method according to claim 107, comprising:

(C') simultaneously bringing the at least one product flow from at least two spatially separated reaction spaces in contact with a control fluid from a control fluid feed common to all the reaction spaces.

109. (New) A method according to claim 107, wherein the control fluid is a gas and this gas is not only used for controlling the flows through the reaction spaces, but also contributes to stripping gases and volatile substances which may be dissolved in the liquid phases emerging from the reaction spaces in the gas-liquid separation unit.

110. (New) A method according to claim 107, carried out in a device according to claim 102.

111. (New) Use of the device according to claim 102, or of a method according to claim 107, for at least one standard petrochemical reaction.

112. (New) Use according to claim 111, characterized in that the at least one reaction is selected from the reaction classes of hydroprocessing, hydrocracking, desulfurization (HDS), denitrogenation (HDN), oligomerizations, polymerization reactions, aromatization reactions, hydrogenations, Fischer-Tropsch reactions.

113. (New) A device for the processing or testing of at least one chemical reaction, comprising:

a unit for the controlled discharge of product fluid out of at least one high pressure end fluid separation unit, wherein said fluid separation unit is in fluid connection, via a discharge valve, with a collecting area that is at a lower pressure than the high pressure fluid separation unit.

114. (New) A device according to claim 113, wherein at least two reactions run in parallel and that at least two fluid separation units, either on the high or at the low pressure end, or both, are connected in parallel.

115. (New) A device according to claim 113, wherein a discharge valve is positioned at the bottom side of at least one fluid separation unit on the high pressure end.

116. (New) A device according claim 113, wherein the collecting area for the product fluid is a fluid separation unit located at the low pressure end with respect to the high pressure end fluid separation unit.

117. (New) A device according to claim 113, wherein at least one fluid separation unit contains a fluid level sensor.

118. (New) A device according to claim 113 containing means for regulating pressure or fluid flow or both.

119. (New) A device according to claim 118 wherein a discharge valve is positioned at the bottom side of at least one fluid separation unit on the high pressure end, at least one fluid separation unit contains a fluid level sensor, the device contains means for regulating pressure or fluid flow or both, and the discharge valve, the fluid level sensor and the means for regulating pressure or fluid flow are connected to a computer-based control unit.

120. A device according to any one of claim 113, wherein at least one high pressure end fluid separation unit is suited for accommodating product fluid having a volume ranging from 0.1 ml to 140 ml.

121. (New) A method for the controlled discharge of product fluid out of a high pressure end separation unit that is part of a device for the processing or testing of at least one chemical reaction, comprising the following steps:

(i) opening a discharge valve triggered by the signal of a level sensor in at least one separation unit;

(ii) discharging the product fluid from the at least one separation unit, via said discharge valve, into at least one collecting area; and

(iii) closing said discharge valve, triggered by a signal corresponding to a change in pressure and/or a change in fluid flow.

122. (New) A method according to claim 121, further comprising:

(iv) directing gaseous product flow through the collecting area.

123. (New) A method according to claim 122, further comprising the following step:

(v) directing the product fluid of the collecting area to an analysis system.

124. (New) A method according to claim 122, wherein the gaseous product from the high pressure end separation unit is directed into the low pressure end separation unit by means of a dip pipe or a tube.

125. (New) A method according to claim 122, wherein the gaseous product coming from the low pressure end separation unit is directed to an analysis system.

126. (New) A method according to claim 121, wherein at least two separation units are operated in parallel.